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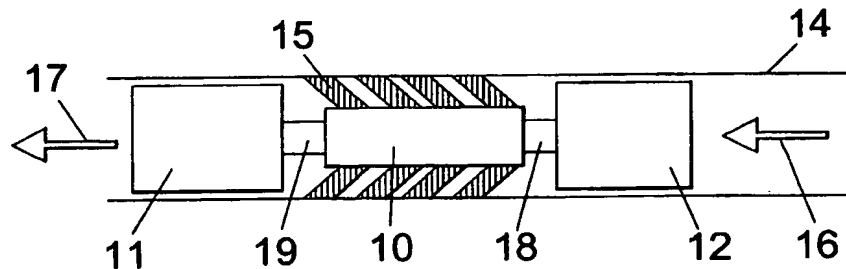
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(54) Title: TRACTORS FOR MOVEMENT ALONG A PIPELINE WITHIN A FLUID FLOW



(57) Abstract: A tractor comprises a tractor module (10) coupled at opposite ends to a cleaning or inspection module (11) and a power generation module (12), the three modules being arranged in line within a pipeline (14) such that traction elements (15) on the tractor module (10) engage the wall of the pipeline (14). In operation within a pipeline along which fluid is flowing in the direction (16), drive is imparted to the power generation module (12) by the fluid flow, and the tractor module (10) is driven in the direction (17) by the power generation module (12) by way of a drive shaft (21) and appropriate step-down gearing (not shown). A speed governor is used to control the rotational speed of the drive shaft (21) such that the tractor speed is not directly related to the speed of the fluid flow, and is preferably substantially independent of the speed of the fluid flow. A tractor travelling at a constant and/or controlled speed is found to achieve better cleaning, or to enable more efficient inspections, than a tractor which is propelled along the pipeline at the rate of fluid flow in the pipeline.

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